

EXHIBIT 31
FILED UNDER SEAL

Message

From: [REDACTED]
Sent: 7/28/2020 9:03:40 PM
To: Nitish Korula [nitish@google.com]

• [REDACTED], 2020-07-28 14:03:40

Hi Nitish, hope you're doing well. Last week -- hooray!

• Nitish Korula, 2020-07-28 14:03:49

I am, thanks

• Nitish Korula, 2020-07-28 14:03:52

How are you?

• [REDACTED], 2020-07-28 14:04:07

Doing okay!

• [REDACTED], 2020-07-28 14:04:19

Haven't seen the Ad Age story yet, but keeping an eye out.

• Nitish Korula, 2020-07-28 14:04:26

Thanks ☺

• [REDACTED], 2020-07-28 14:04:34

Do you have a second for a pview bid adjustment Q?

• Nitish Korula, 2020-07-28 14:04:49

shoot

• [REDACTED], 2020-07-28 14:07:09

I was bringing [REDACTED] to speed on the BI convo. We were discussing how, while these adjustments help publisher revenue, this presents a scenario where the highest bid does not in fact win the auction. Doesn't this ultimately compromises our fair and transparent first price auction strategy?

• Nitish Korula, 2020-07-28 14:07:22

Not really

• Nitish Korula, 2020-07-28 14:07:28

Because it's the highest net bid to the publisher

• Nitish Korula, 2020-07-28 14:07:38

And in this case, the effective bid to the publisher is lower

• Nitish Korula, 2020-07-28 14:08:04

If I submit a \$10 bid with a 50% chance of payment, the expected net bid is only \$5

• [REDACTED], 2020-07-28 14:08:26

It's the highest net bid to the publisher, but based on optimizations we don't share with the publisher to validate.

• Nitish Korula, 2020-07-28 14:09:38

The publisher has no way of validating anyway, right? Even Data Transfer files don't contain all the information (even setting aside pView), such as issues related to controls

- **Nitish Korula**, 2020-07-28 14:10:30

We don't claim that publishers can or should validate everything, because that's way too much complexity

- **Nitish Korula**, 2020-07-28 14:10:44

For example, on many queries, we don't even call out to certain bidders

- **Nitish Korula**, 2020-07-28 14:10:51

Because they can't handle all the traffic we get

- **Nitish Korula**, 2020-07-28 14:11:10

And we have a machine learning system that predicts which traffic they're likely to bid on

- **Nitish Korula**, 2020-07-28 14:11:23

The publisher has no way to validate that we're asking for bids on the 'right' traffic

- **Nitish Korula**, 2020-07-28 14:11:47

But ultimately, we have to pick only a subset of queries to request bids on, because the bidder just doesn't have the infrastructure for more

- **Nitish Korula**, 2020-07-28 14:11:55

(Even many of the large bidders)

- [REDACTED], 2020-07-28 14:14:27

Thanks for this context. The concern I'm thinking through: if the team publishes a help center article that explains pview, publishers (rightfully so) will be surprised to learn about this auction adjustment. And they aren't seeing it reflected in their DT file. So, we will start to hear our critics complain about Google not being transparent. Even in the move to first price, they highest bidder doesn't always win, and they're 'grading their on homework' by telling us that their machine learning is helping us make more money.

- [REDACTED], 2020-07-28 14:15:40

I hear your point about this being the highest bid to the publisher based on our auction optimizations, but I worry about how publishers will respond to that notion.

- **Nitish Korula**, 2020-07-28 14:15:53

Every SSP has machine learning that helps make publishers more money - that's part of the core value prop of an SSP

- [REDACTED], 2020-07-28 14:16:43

Right. I'm playing devil's advocate right now. But yes, that's true.

- **Nitish Korula**, 2020-07-28 14:16:51

And to be clear, this is very much why we always say 'highest *net* bid';

- **Nitish Korula**, 2020-07-28 14:16:55

It's like an eCPM

- **Nitish Korula**, 2020-07-28 14:17:41

And it's a relatively easy thing to justify - we shouldn't make a big deal out of the ML

- **Nitish Korula**, 2020-07-28 14:18:15

We penalize creatives that frequently fail to render, so a publisher doesn't lose money by selecting an ad that doesn't actually result in a payment to them

- [REDACTED], 2020-07-28 14:18:36

Because pubs don't see it that way in their DT file, I'd imagine push back on that

- [REDACTED], 2020-07-28 14:19:35

Maybe I'm overthinking it. Will review the help center language. I think we should be careful about language around highest bidder not winning.

- [REDACTED], 2020-07-28 14:19:51

Thank you as always for this context! It's helpful

- **Nitish Korula**, 2020-07-28 14:20:01

Yes, we can / should be careful around the language

- **Nitish Korula**, 2020-07-28 14:20:07

[REDACTED] and [REDACTED] might be good people to review it with

- **Nitish Korula**, 2020-07-28 14:20:25

I would generally say something like

- **Nitish Korula**, 2020-07-28 14:20:34

We penalize creatives that frequently fail to render, so a publisher doesn't lose money if we select an ad that doesn't actually result in a payment to them

- **Nitish Korula**, 2020-07-28 14:20:59

This happens very rarely - well under 1% of auctions, and mostly for video, where complex creatives are more likely to result in rendering errors

- [REDACTED], 2020-07-28 14:21:37

Thank you, this is helpful! I know [REDACTED] had concerns with getting too specific on less than 1%.

- [REDACTED], 2020-07-28 14:21:49

For me, that point is very helpful

- **Nitish Korula**, 2020-07-28 14:22:28

We could consider using that in comms rather than in the help center, if that would make a difference

- **Nitish Korula**, 2020-07-28 14:23:03

(I recognize [REDACTED]'s concern, because we're thinking of deprecating this entire thing and replacing it by something simpler, but which could apply more broadly to other areas where errors are common)

- **Nitish Korula**, 2020-07-28 14:23:15

The simpler thing would also be easier to be transparent about

- **Nitish Korula**, 2020-07-28 14:23:44

But we don't have that yet

- **Nitish Korula**, 2020-07-28 14:23:49

Do we need to publish a HC article?

- [REDACTED], 2020-07-28 14:24:11

That's my question too

- [REDACTED], 2020-07-28 14:24:23

I'm not sure why we're rushing the HC article before the BI convo.

- **Nitish Korula**, 2020-07-28 14:24:33

This seems like a situation where actually having PM/Eng talk to BI may be worth it because we can explain it in a clear way that comes across as non-defensive, obviously providing value to them, etc.

- [REDACTED], 2020-07-28 14:24:40

Especially if changes may be made to this in the future.

- [REDACTED], 2020-07-28 14:24:50

I agree with you

- [REDACTED], 2020-07-28 14:25:13

Will speak with [REDACTED] and better understand the need of the HC article.

- [REDACTED], 2020-07-28 14:25:38

As you know, these HC can create news cycles. Seems like an unnecessary risk right now

- **Nitish Korula**, 2020-07-28 14:26:29

Yeah, +1

- [REDACTED], 2020-07-28 14:26:40

thanks nitish!